


1. Identification

1.1 Product Identifier	80-945 Expanding Polyurethane Foam Sealant
1.2 Relevant Use	One Component Polyurethane Foam Sealant HC
1.3 Supplier/Manufacturer	Kimball Midwest 4800 Roberts Road Columbus, Ohio 43228
1.4 Emergency Number	(800) 424-9300 Chemtrec Available 24 hours

2. HAZARDS IDENTIFICATION

Emergency Overview:

2.1 Hazard Classification	Flammable Aerosol- Category 1 Gases Under Pressure- Compressed Gas Acute Toxicity Inhalation- Category 4 Skin Irritation- Category 2 Serious Eye Irritation Category 2A Respiratory Sensitizing Category 1 Skin Sensitization 1 Specific Target Organ Toxicity SE 3 Specific Target Organ Toxicity RE 2
2.2 Label elements Hazard Pictograms	
Signal Word	DANGER
Hazard Statements	Extremely flammable aerosol Contains gas under pressure; may explode if heated Harmful if inhaled Causes Skin Irritation May cause an allergic skin reaction May cause allergy or asthma symptoms or breathing difficulties if inhaled Causes Serious Eye Irritation May cause respiratory irritation May cause damage to organs through prolonged or repeated exposure
Prevention	Keep Out of Reach of Children Keep away from heat/sparks/open flames/hot surfaces-No Smoking Do not spray on an open flame or other ignition source Pressurized Container: Do not pierce or burn, even after use Do not breathe dust/fume/gas/mist/vapors/spray Do not eat, drink or smoke when using this product Use only outdoors or in a well-ventilated area In case of inadequate ventilation wear respiratory protection Wear protective gloves/eye protection/face protection Wash hands thoroughly after handling
Response:	Get medical advice/attention if you feel unwell IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical attention.

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.

IF INHALED: Remove Person to fresh air and keep comfortable for breathing. Call a poison center/physician.

Storage Do not expose to temperatures exceeding 50°C/122°F. Protect from sunlight. Store in a well-ventilated place. Store locked up.

Disposal Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3 Additional Information:
Hazards not otherwise classified:

Not applicable

WHMIS Classifications:
Class A- Compressed Gas
Class B5- Flammable Aerosol
Class D2A- Respiratory Sensitizer
Class D2B- Skin Sensitization
Class D2B- Skin/Eye Irritant

WHMIS Signal Word: DANGER

WHMIS Hazard Symbols:



3. Composition/ Information on Ingredients

Ingredient	CAS No.	Wt. %
4,4' Diphenylmethane diisocyanate	101-68-8	5-10
Polymethylene polyphenyl isocyanate	9016-87-9	5-10
Isobutane	75-28-5	3-7
Dimethyl ether	115-10-6	3-7
Propane	74-98-6	1-5

4. First Aid Measures

4.1 Description of first aid measures

Eye: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.

Skin: In case of contact, immediately flush skin with plenty of soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention.

Ingestion: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed:

Eye: May cause eye irritation.

Skin: May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause an allergic reaction.

Inhalation: May be harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Ingestion: May be harmful if swallowed. May cause gastrointestinal irritation: stomach distress, nausea, or vomiting.

4.3 Notes to the physician Symptoms may not appear immediately.
 If case of an accident or if you feel unwell, seek medical advice immediately (show label or SDS if possible).

5. Fire-fighting measures

5.1 Flammability	Flammable by OSHA/WHMIS criteria
5.2 Extinguishing media	
Suitable extinguishing media	Dry chemical, carbon dioxide, Halon 1211, chemical foams
Unsuitable extinguishing media	Water is not recommended unless used in large quantities and other extinguishing agents are not available. Water may spread the fire.
5.3 Special hazards arising from the substance or mixture	
Products of combustion:	May include and are not limited to: oxides of carbon, oxides of nitrogen, hydrogen fluoride, and traces of hydrogen cyanide.
5.4 Special protective equipment and precautions for fire fighters	Keep upwind of fire. Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Use water spray to keep fire-exposed containers cool. Containers may explode if heated.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	
	Use personal protective equipment recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Eliminate sources of ignition.
6.2 Methods and materials for containment and cleaning up:	
Method for containment:	Uncured product is very sticky; carefully remove the bulk of the foam by scraping it up and then immediately remove the residue with a rag and solvent such as Handi-Cleaner, mineral spirits, acetone (nail polish remover), paint thinner, etc. Once the product is cured it can only be removed mechanically by scraping, buffing, etc. Do not flush to sewer or allow to enter waterways. Use appropriate PPE.
Methods for cleaning up:	Scoop up material and place in a disposal container. Dispose of as plastic waste in accordance with all applicable guidelines and regulations. Vapors can accumulate in low areas. Provide ventilation

7. Handling and storage

7.1 Precautions for safe handling

Handling: Keep away from sources of ignition- No smoking. Do not spray on an open flame or other ignition source. Pressurized container: do not pierce or burn, even after use. Container may explode if heated. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray. Do not swallow. Use only in a well-ventilated area or outdoors. Avoid welding or other "hot work" in the vicinity of exposed cured foam. When using do not eat, drink or smoke. (See section 8)

General hygiene advice: Launder contaminated clothing before reuse. Wash hands before eating, drinking or smoking.

7.2 Conditions for safe storage including any incompatibilities

Storage: Store in a dry place. Ideal storage temperature is 60°F to 80°F (15.5°C to 26.6°C). Do not expose aerosol cans to open flame or temperatures above 122°F (50°C). Excessive heat can cause premature aging of components resulting in a shorter shelf life. Storage below 55°F (12.7°C) may affect foam quality if chemicals are not warmed to room temperature before using. Protect containers from physical abuse. Keep containers upright. **Keep away from children.**

8. Exposure controls/personal protection

8.1 Control Parameters

Exposure Guidelines

Ingredient	OSHA-PEL	ACGIH-TLV	Other
4,4' Diphenylmethane diisocyanate	.2 mg/m ³ Ceiling	0.005 ppm Ceiling	
Polymethylene polyphenyl isocyanate			
Isobutane		1000 ppm	
Dimethyl ether			WEEL- 1000 ppm TWA
Propane	1000 ppm	1000 ppm	

8.2 Exposure Controls:

Engineering Controls: Use ventilation adequate to keep exposures below recommended exposure limits.

8.3 Individual Protective Measures

Personal Protective Equipment:	
Respiratory Protection/Ventilation:	If atmospheric levels are expected to exceed the exposure levels, use a NIOSH approved air purifying respirator equipped with an organic vapor cartridge and particulate filter. If atmospheric levels exceed 10 times the TLV or PEL level for which an air-purifying respirator is effective, use a powered air purifying respirator (PAPR). The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134).
Eye/Face Protection	Wear safety glasses with side shields or goggles.
Skin Protection	Wear chemical resistant gloves (nitrile). Wear suitable protective clothing.
General health & safety	Do not smoke, drink, or eat while handling this product. Wash after handling. Ensure that eyewash bottles or stations are in the area.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties	
General Physical Form	Viscous liquid which forms off-white to yellowish foam upon release.
Color	Crème. Some products contain a dye or colorant i.e. Fireblock is orange.
Odor	Slight hydrocarbon odor during curing stage
Odor Threshold:	Not available
Physical State:	Gas/Pressurized Liquid/Semi-Solid
pH:	Not available
Melting Point/Freezing Point	Not available
Initial Boiling Point and Boiling Range	Not available
Flash Point:	-156°F
Evaporation Rate:	Not available
Flammability:	Flammable
Lower Flammability/Explosive Limit:	Not available
Upper Flammability/Explosive Limit:	Not available
Vapor Pressure	Aerosol product > 50 psig/ 345 kPa Final product (sprayed): Very low (not determined)
Vapor Density:	Not available
Relative Density/Specific Gravity:	~ 1.1 (Water = 1)
Solubility:	Insoluble; reacts slowly with water during cure, liberating traces of CO ₂
Partition coefficient: n-octanol/water:	Not available

Auto-ignition Temperature:	Not available
Decomposition Temperature;	Not available
Viscosity:	Not available
Explosive Properties:	May be sensitive to mechanical impact or static discharge. Vapor released during and immediately after dispensing may accumulate and ignite explosively if proper ventilation is not employed. Extinguish or remove all sources of ignition during dispensing, until product becomes tack free or skins over.
Oxidizing Properties:	Not available
VOC Content (calculated minus exempt compounds and water)	165 g/l

10. STABILITY AND REACTIVITY

10.1 Reactivity:

No dangerous reaction known under conditions of normal use.

10.2 Chemical Stability:

Stable under normal storage conditions. Contents under pressure. Container may explode if heated. Do not pierce or burn, even after use. Avoid temperatures below 40°F (5°C). For longest shelf life, avoid storage above 95°F (35°C).

10.3 Possibility of Hazardous Reactions:

No dangerous reaction known under conditions of normal use.

10.4 Conditions To Avoid:

Heat. Incompatible materials. Sources of ignition. Avoid temperatures below 40°F (5°C) or temperatures above 95°F (35°C).

10.5 Incompatible Materials:

Alcohols, strong bases, amines, metal compounds, ammonia, and strong oxidizers.

10.6 Hazardous Decomposition Products:

May include, and are not limited to: oxides of carbon, oxides of nitrogen, hydrogen fluoride and traces of hydrogen cyanide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological effects:

Likely routes of exposure: Skin Contact, skin absorption, eye contact, inhalation and ingestion.

Symptoms related to physical/chemical/toxicological characteristics:

Eye: May cause serious eye irritation. Symptoms may include discomfort or pain, excessive blinking and tear production, with possible redness and swelling.

Skin: May cause skin irritation. Symptoms may include redness, edema, drying, defatting, and cracking of the skin. May cause an allergic skin reaction.

Ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

Inhalation: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory tract inhalation. Chronic overexposure to diisocyanates can cause permanent lung damage.

Acute Toxicity:

Ingredient	Inhalation LC 50	Oral LC 50	Dermal LC 50
4,4' Diphenylmethane diisocyanate	490 mg/m ³ , 4h rat	>10,000 mg/kg, rat	>9400 mg/kg, rabbit
Polymethylene polyphenyl isocyanate	310 mg/m ³ , 4h rat	>10,000 mg/kg, rat	>9400 mg/kg, rabbit
Isobutane	658 mg/l, 4h rat		
Dimethyl ether	308.5 mg/l, 4h rat		
Propane	658 mg/l 4h, rat		

Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)
4,4' Diphenylmethane diisocyanate	IARC-3
Polymethylene polyphenyl isocyanate	IARC-3
Isobutane	Not Listed
Dimethyl ether	Not Listed
Propane	Not Listed

11.2 Delayed, Immediate, and Chronic Effects of Short and Long Term Exposure	
Skin Corrosion/Irritation	Irritating to skin
Serious Eye Damage/Irritation	Cause serious eye irritation
Respiratory Sensitization	May cause sensitization by inhalation
Skin Sensitization	May cause sensitization by skin contact
STOT-single exposure	May cause respiratory irritation
Chronic Health Effects	Carcinogenicity: Based on the available data, the classification criteria is not met Germ Cell Mutagenicity: Based on the available data, the classification criteria is not met
Reproductive Toxicity	Developmental: Based on the available data, the classification criteria is not met Teratogenicity: Based on the available data, the classification criteria is not met Embryo Toxicity: Based on the available data, the classification criteria is not met Fertility: Based on the available data, the classification criteria is not met
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure
Aspiration Hazard	Based on available data, the classification criteria is not met
Toxicologically Synergistic:	Not available
Other Information:	Not available

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

CP65 California Proposition 65

OSHA (O) Occupational Safety and Health Administration.

ACGIH (G) American Conference of Governmental Industrial Hygienists.

- A1 - Confirmed human carcinogen.
- A2 - Suspected human carcinogen.
- A3 - Animal carcinogen.
- A4 - Not classifiable as a human carcinogen.
- A5 - Not suspected as a human carcinogen.

IARC (I) International Agency for Research on Cancer.

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

NTP (N) National Toxicology Program.

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

12. Ecological Information

12.1 Ecotoxicity

Acute/Chronic Toxicity

May cause long-term adverse effects in the aquatic environment.

12.2 Persistence and Degradability

Not available

12.3 Bioaccumulative Potential

Bioaccumulation: Not Available

12.4 Mobility in soil

Not Available

12.5 Other Adverse Effects

Not Available

13. Disposal considerations

13.1 Waste Treatment Methods

Disposal Method:

Before disposing of containers, relieve container of any remaining foam and pressure. Allow product to fully cure before disposing. Never discard in a liquid state. This material must be disposed of in accordance with all local, regional, national, international regulations.

Other disposal recommendations:

Do not puncture or incinerate containers. Use appropriate Personal Protective Equipment.

14. Transportation

Shipping Information

Containers 1000 cu. cm. (1 liter) or less:

		Due to changes in December 2020: See shipping papers for exact 49 CFR descriptions.
Ground	Consumer Commodity ORM-D	Limited Quantity
Air	UN1950 Aerosols, Flammable 2.1 (Flammable Gas Label) LIMITED QUANTITY Packing Instructions (Cargo & Passenger) 203	UN1950 Aerosols, Flammable 2.1 (Flammable Gas Label) LIMITED QUANTITY Packing Instructions (Cargo & Passenger) 203
Water	UN1950 Aerosols, Flammable 2.1 (Flammable Gas Label) LIMITED QUANTITY	UN1950 Aerosols, Flammable 2.1 (Flammable Gas Label) LIMITED QUANTITY

15. REGULATORY

15.1 Safety, Health, and Environmental Regulations/Legislations Specific for the Chemical

United States: SDS prepared pursuant to the Hazard Communication Standard (29 CFR 1910.1200)

Canada: This product has been classified in accordance with the hazard criteria of Controlled Products Regulations.

Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 301 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
4,4' Diphenylmethane diisocyanate	Not Listed	Not Listed	5000	313
Polymethylene polyphenyl isocyanate	Not Listed	Not Listed	Not Listed	313
Isobutane	Not Listed	Not Listed	Not Listed	Not Listed
Dimethyl ether	Not Listed	Not Listed	Not Listed	Not Listed
Propane	Not Listed	Not Listed	Not Listed	Not Listed

Ingredient	US TSCA	Canada DSL/NDSL
4,4' Diphenylmethane diisocyanate	Yes	DSL
Polymethylene polyphenyl isocyanate	Yes	DSL
Isobutane	Yes	DSL
Dimethyl ether	Yes	DSL
Propane	Yes	DSL

California Proposition 65:

Based on information currently available, this product is not known to contain detectable amounts of any chemicals currently listed under California Proposition 65.

16. OTHER

NFPA: Health Hazard 2; Flammability 3; Reactivity 1

HMIS: Health Hazard 2; Flammability 3; Physical Hazard 1

Hazard Rating: 0=minimal, 1= slight, 2=moderate, 3=severe, 4= extreme

Revision Date: July 24, 2014

Supersedes Date: March 4, 2013

Revision 7

All Kimball Midwest SDS are available at kimballmidwest.com

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